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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,274

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Yoshinori Uzuka

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EXAMINER

NGUYEN, HUNG THANH

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,274

Applicant(s)

UZUKA ET AL.

Examiner

HUNG T. NGUYEN

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____



DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stucke (US 5,335,146).

Regard claim 11: Stucke discloses in figure 2, a plurality of crossbar-boards (28) arranged in parallel, and a plurality of back panels (10) detachably connected electrically and mechanically to different sides of each of said crossbar-boards. Stucke does not disclose the crossbar board-back panel assembly includes a caster provided on the bottom thereof.

However, it is old and well known for one ordinary skill in the art to make a caster at the bottom of a backplane so that it is easier to move.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention was made to combine Stucke's invention with the caster for the benefit of moving the assembly easier.

Allowable Subject Matter

Claims 1-10 are allowed.

Regard claim 1: Stucke discloses in figure 1, an information-processing device comprising: a crossbar board-back panel assembly comprising a plurality of crossbar-boards (28) each having a switching element (26) mounted thereon, and a plurality of back panels (10) detachably connected electrically and mechanically to different sides of each of said crossbar-boards (28), Stucke does not disclose a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon wherein each of said back panels is formed by a plurality of strip panels arranged at positions corresponding to said crossbar-boards, said motherboards crossing the plurality of the strip panels , and said strip panels are supplied with different voltages. There would be no motivation to make these modifications.

Regard claim 2: Stucke discloses in figure 1, an information-processing device comprising: a crossbar board-back panel assembly comprising a plurality of rectangular crossbar-boards (28) arranged in parallel, and two opposing back panels (10) detachably connected electrically and mechanically to longitudinal sides of each of said crossbar- boards (28).

Stucke does not disclose a plurality of motherboards detachably connected electrically and mechanically to each of said two opposing back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon, wherein said two opposing back

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panels are formed by a plurality of pairs of two opposing strip panels arranged at positions corresponding to each of said rectangular crossbar-boards, and said crossbar board-back panel assembly includes a plurality of crossbar board-strip panel assemblies piled up on each other each of said crossbar board-strip panel assemblies comprising one of said rectangular crossbar-boards and one of said pairs of said two opposing strip panels detachably connected electrically and mechanically to the longitudinal sides of the one of said rectangular crossbar-boards. There would be no motivation to make these modifications.

Regard claim 5: Stucke discloses in figures 1, an information-processing device comprising: a crossbar board-back panel assembly (10) comprising a plurality of crossbar-boards (28) each having a switching element (26) mounted thereon, and a plurality of back panels (10) detachably connected electrically and mechanically to different sides of each of said crossbar-boards (28).

Stucke does not disclose a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon, and hollow heat-radiation components each placed between said crossbar-boards wherein an air moves through inside of said hollow heat-radiation components. There would be no motivation to make these modifications.

Regard claim 6: Stucke discloses in figure 1, an information-processing device comprising: at least one crossbar-board (28) having a switching element (26)

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mounted thereon, a plurality of back panels (10) detachably connected electrically and mechanically to different sides of said crossbar-board (28).

Stucke does not disclose at least one motherboard detachably connected electrically and mechanically to each of said back panels the motherboard having an information-processing semiconductor element mounted thereon, wherein each of said back panels comprises a grid-like frame and smaller panels than each of said back panels, the smaller panels arranged in the grid-like frame. There would be no motivation to make this modification.

Regard claim 8: Stucke discloses in figure 1, an information-processing device comprising: at least one crossbar-board (28) having a switching element (26) mounted thereon, a plurality of back panels (10) detachably connected electrically and mechanically to different sides of said crossbar-board (28).

Stucke does not disclose at least one motherboard detachably connected electrically and mechanically to each of said back panels, the motherboard having an information-processing semiconductor element mounted thereon, wherein each of said back panels comprises smaller panels than each of said back panels, the smaller panels detachably connected electrically and mechanically to each other voltage. There would be no motivation to make this modification

Regard claim 9: Stucke does not disclose, an information-processing device comprising: two grid-like frames opposing each other; a plurality of crossbar-boards fixed between said two grid-like frames, at least one motherboard fixed to each of said two grid-like frames, the motherboard having an information-

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processing semiconductor element mounted thereon, and a flexible connector connecting said motherboard and each of said crossbar-boards. There would be no motivation to make these modifications.

Regard claim 10: Stucke discloses in figures 1, an information-processing device comprising: a crossbar board-back panel assembly comprising a plurality of crossbar-boards (28) arranged in parallel, and a plurality of back panels (10) detachably connected electrically and mechanically to different sides of each of said crossbar-boards (28).

Stucke does not disclose a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon, wherein said crossbar board-back panel assembly includes a caster provided on the bottom thereof. There would be no motivation to make these modifications.

Response to Arguments

Applicant's arguments filed 1/5/06 have been fully considered but they are not persuasive.

Regard claim 11: Applicant's argues that "reference does not teach or suggest a cross board-back panel". This argument is not found persuasive because it is old and well known in the art to make backplane includes caster for the benefit of easier to move.

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Regard claims 1-10: Applicant's argues that "a plurality of motherboards connected to each back panel". This argument is persuasive.

Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Stephen (US 5352123) teaches the Switching Midplane, Evan et al. (US 4838798) teaches the High Density Board to Board, Takashima (US 5091822) teaches the Radial Type of Parallel Bus Structure. Stucke (US 5335146) teaches High Density Packaging for Device, Wells (US 4237546) teaches the multi-layered back plane for computer system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG T. NGUYEN whose telephone number is 571-272-5983. The examiner can normally be reached on 8:00AM-5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMMIE CUNEO can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HUNG THANH NGUYEN

3/16/06

HN



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